

**AMENDMENTS TO THE CLAIMS**

Please **AMEND** claims 2 and 14 as shown below.

Please **ADD** claims 16-22 as shown below.

The following is a complete list of all claims in this application.

1. (Original) A CMOS thin film transistor, comprising:

an active channel of a P-type thin film transistor, the active channel being formed in polycrystalline silicon,

an active channel of a N-type thin film transistor, the active channel being formed in polycrystalline silicon,

primary grain boundaries in the P-type thin film transistor,

primary grain boundaries in the N-type thin film transistor,

wherein a direction of the active channel of the P-type transistor is different from a direction of the active channel of the N-type transistor such that the primary grain boundaries of the P-type thin film transistor are at an angle of about 60° to about 120° with respect to the active channel direction of the P-type thin film transistor and the primary grain boundaries of the N-type thin film transistor are out an angle of about -30° to about 30° with respect to the active channel direction of the N-type thin film transistor.

2. (Currently Amended) The CMOS thin film transistor of claim 1, wherein the P-type thin film transistor is formed such that it has a high current mobility while the N-type thin film transistor is formed such that it has a low current mobility.

3. (Original) The CMOS thin film transistor of claim 1, wherein the P-type thin film transistor is formed such that it has a low threshold voltage while the N-type thin film transistor is formed such that it has a high threshold voltage.

4. (Original) The CMOS thin film transistor of claim 3, wherein a difference between an absolute value of the threshold voltage of the P-type thin film transistor and an absolute value of the threshold voltage of the N-type thin film transistor is 0.

5. (Original) The CMOS thin film transistor of claim 3, wherein a difference between an absolute value of the threshold voltage of the P-type thin film transistor and an absolute value of the threshold voltage of the N-type thin film transistor is substantially zero.

6. (Original) The CMOS thin film transistor of claim 1, wherein a length of a channel of the P-type thin film transistor is substantially equal to a length of a channel of the N-type thin film transistor.

7. (Original) The CMOS thin film transistor of claim 1, wherein the polycrystalline silicon is fabricated by a sequential lateral solidification (SLS) crystallization method.

8. (Original) The CMOS thin film transistor of claim 1, wherein the primary grain boundaries of the P-type thin film transistor are substantially perpendicular to an active channel direction of the P-type thin film transistor, and the primary grain boundaries of the N-type thin film transistor are substantially horizontal to the active channel direction of the N-type thin film transistor.

9. (Original) The CMOS thin film transistor of claim 1, wherein the primary grain boundaries of the P-type thin film transistor are perpendicular to an active channel direction of the P-type thin film transistor, and the primary grain boundaries of the N-type thin film transistor are horizontal to the active channel direction of the N-type thin film transistor.

10. (Original) The CMOS thin film transistor of claim 1, wherein a majority of the primary grain boundaries of the P-type thin film transistor are substantially perpendicular to an active channel direction of the P-type thin film transistor, and a majority of the primary

grain boundaries of the N-type thin film transistor are substantially horizontal to the active channel direction of the N-type thin film transistor.

11. (Original) The CMOS thin film transistor of claim 1, wherein the CMOS thin film transistor includes a lightly doped drain (LDD) structure or off set structure.

12. (Original) A display device, comprising:  
a CMOS thin film transistor, the CMOS thin film transistor comprising:  
an active channel of a P-type thin film transistor, the active channel being formed in polycrystalline silicon,  
an active channel of a N-type thin film transistor, the active channel being formed in polycrystalline silicon, primary grain boundaries in the P-type thin film transistor,  
primary grain boundaries in the N-type thin film transistor, wherein a direction of the active channel of the P-type transistor is different from a direction of the active channel of the N-type transistor such that the primary grain boundaries of the P-type thin film transistor are at an angle of about 60° to about 120° with respect to the active channel direction of the P-type thin film transistor and the primary grain boundaries of the N-type thin film transistor are out an angle of about -30° to about 30° with respect to the active channel direction of the N-type thin film transistor.

13. (Original) The display device of claim 12, wherein the display device is a liquid crystal display (LCD) device or an organic electroluminescent display device.

14. (Currently Amended) A method of fabricating a CMOS thin film transistor, the method comprising:  
forming a polysilicon pattern for a N-type thin film transistor and a polysilicon pattern for a P-type thin film transistor on a substrate by crystallizing amorphous silicon using a laser whereby grain boundaries between grains are formed in the polysilicon pattern

for the N-type thin film transistor and the polysilicon pattern for the P-type thin film transistor,

wherein an angle between grain boundaries of the N-type thin film transistor and an active channel region of the N-type thin film transistor is about  $-30^{\circ}$  to about  $30^{\circ}$  and an angle between grain boundaries of the P-type thin film transistor and an active channel of the P-type thin film transistor is about  $60^{\circ}$  to about  $120^{\circ}$ .

15. (Original) The method of fabricating a CMOS thin film transistor of claim 14, wherein the angle between the grain boundaries of the N-type thin film transistor and the active channel of the N-type thin film transistor is substantially equal to zero and the angle between the grain boundaries of the P-type thin film transistor and the active channel of the P-type thin film transistor is substantially equal to  $90^{\circ}$ .

16. (New) A CMOS thin film transistor, comprising:

an active channel of a P-type thin film transistor, the active channel being formed in polycrystalline silicon;

an active channel of a N-type thin film transistor, the active channel being formed in polycrystalline silicon;

primary grain boundaries in the P-type thin film transistor; and

primary grain boundaries in the N-type thin film transistor,

wherein a direction of the active channel of the P-type transistor is different from a direction of the active channel of the N-type transistor such that the primary grain boundaries of the P-type thin film transistor are at an angle of about  $60^{\circ}$  to about  $120^{\circ}$  with respect to the active channel direction of the P-type thin film transistor and the primary grain boundaries of the N-type thin film transistor are out an angle of about  $-30^{\circ}$  to about  $30^{\circ}$  with respect to the active channel direction of the N-type thin film transistor, and

wherein the polycrystalline silicon is made by one crystallization method.

17. (New) The CMOS thin film transistor of claim 16, wherein the crystallization

method is a sequential lateral solidification (SLS) method.

18. (New) The CMOS thin film transistor of claim 16, wherein the polycrystalline silicon has grains which have the same grain boundary direction.

19. (New) The CMOS thin film transistor of claim 16, wherein the thin film transistors have different channel directions each other.

20. (New) The CMOS thin film transistor of claim 16, wherein the P-type thin film transistor is formed such that it has a high current mobility while the N-type thin film transistor is formed such that it has a low current mobility.

21. (New) The CMOS thin film transistor of claim 16, wherein the P-type thin film transistor is formed such that it has a low threshold voltage while the N-type thin film transistor is formed such that it has a high threshold voltage.

22. (New) The CMOS thin film transistor of claim 16, wherein a length of a channel of the P-type thin film transistor is substantially equal to a length of a channel of the N-type thin film transistor.